APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: **A METHOD FOR DOWNLOADING A WEB PAGE TO A CLIENT FOR EFFICIENT DISPLAY ON A TELEVISION SCREEN**
Inventor(s): **Lee S. Mighdoll, et al.**
Docket No.: **14531.5.5.1**

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FIG. 1

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 2

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: **A METHOD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN**
Inventor(s): Lee S. Mighdoll, et al.
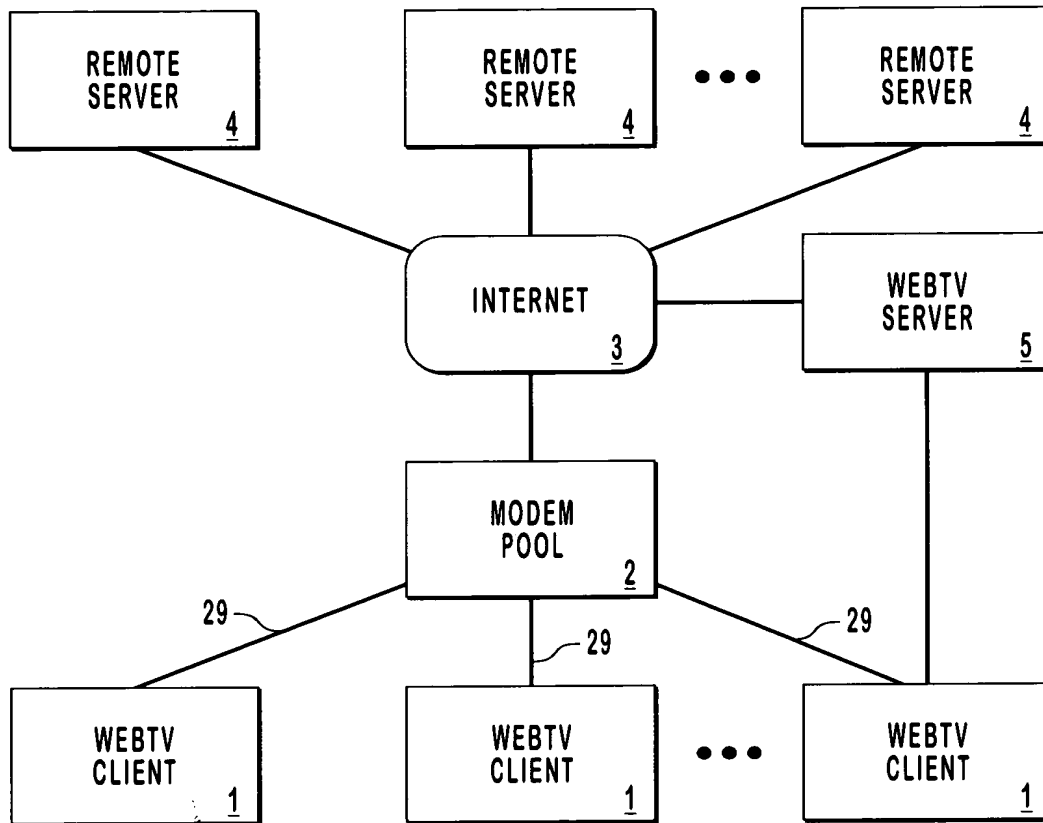Docket No.: 14531.5.5.1

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FIG. 3

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: **A METHOD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN**
Inventor(s): Lee S. Mighdoll, et al.
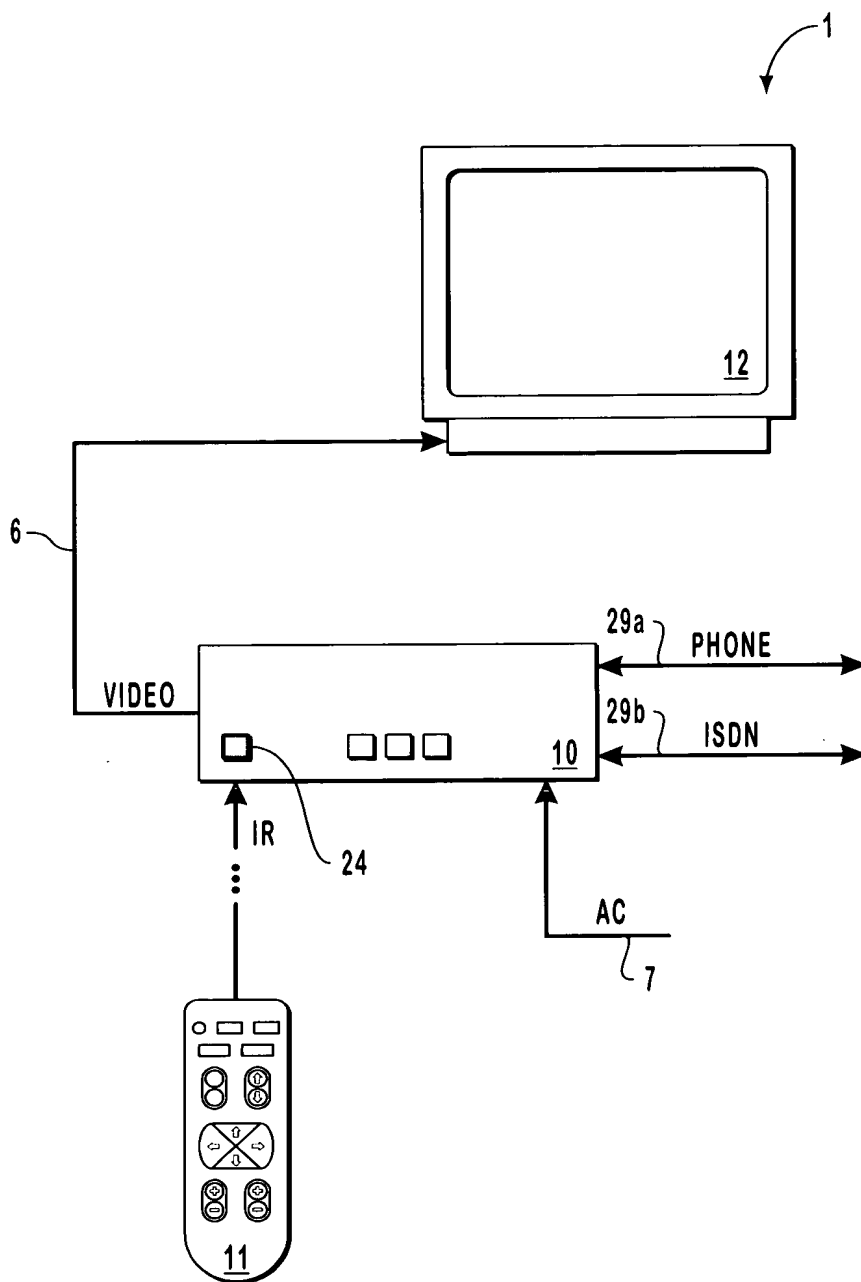Docket No.: 14531.5.5.1

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FIG. 4A

FIG. 4B

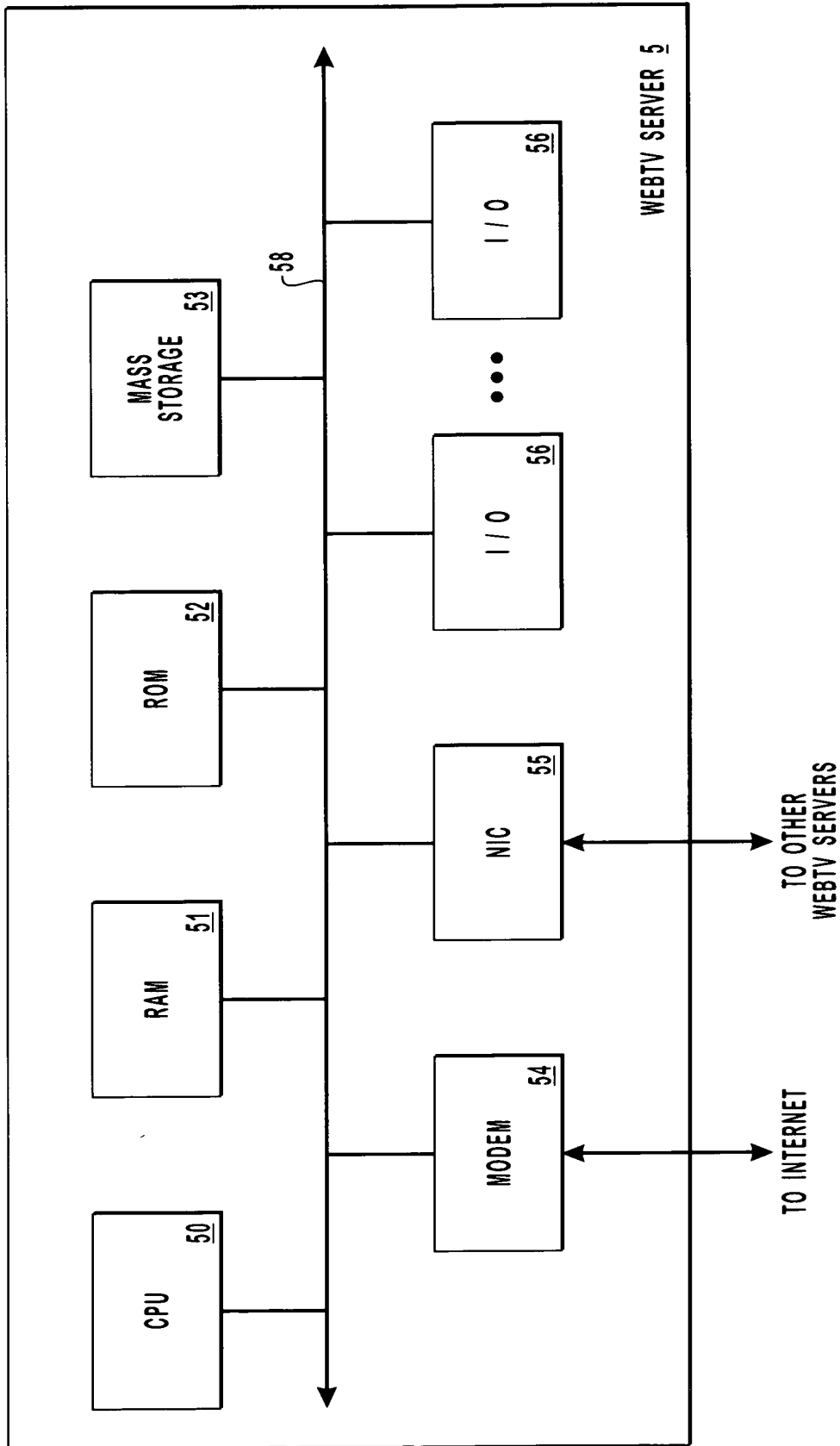| APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: **A METHOD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN**
Inventor(s): Lee S. Mighdoll, et al.
Docket No.: 14531.5.5.1

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```
            ↓
┌──────────────────────────┐
│     RECEIVE DOCUMENT      │── 501
│    REQUEST FROM CLIENT    │
└──────────────────────────┘
            ↓
┌──────────────────────────┐
│ ACCESS DATABASE FOR INFORMATION │── 502
│ RELATING TO REQUESTED DOCUMENT  │
└──────────────────────────┘
            ↓
┌──────────────────────────┐
│   RETRIEVE AND/OR TRANSCODE   │
│    DOCUMENT ACCORDING TO      │── 503
│   INFORMATION IN DATABASE     │
│   AND DOWNLOAD TO CLIENT      │
└──────────────────────────┘
            ↓
```

FIG. 5

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: A METHOD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN
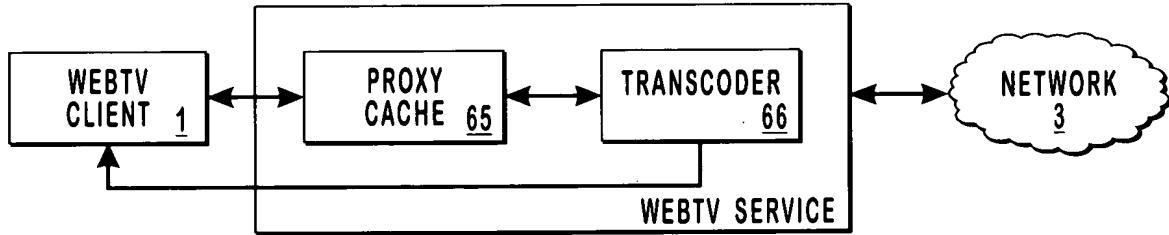Inventor(s): Lee S. Mighdoll, et al.
Docket No.: 14531.5.5.1

RECEIVE DOCUMENT
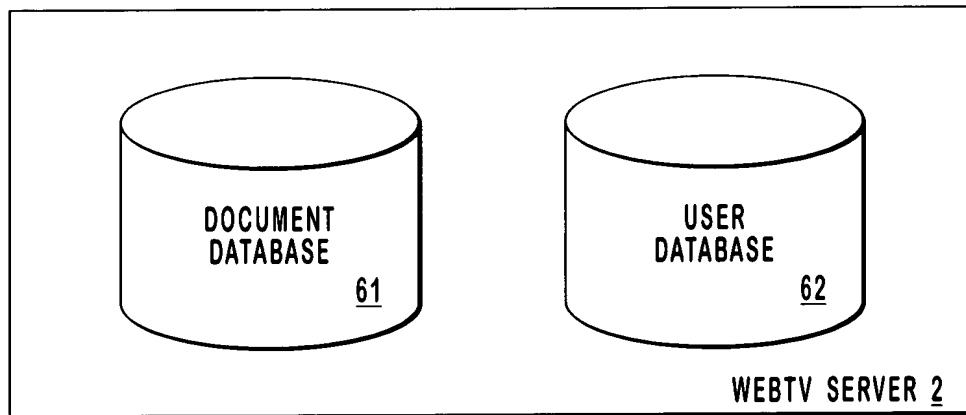REQUEST FROM CLIENT — 601

DOCUMENT
PREVIOUSLY RETRIEVED
? — 602
NO — YES

DOCUMENT
STILL VALID
? — 603
NO — YES

DOCUMENT
IN CACHE
? — 604
NO — YES

RETRIEVE DOCUMENT
FROM REMOTE SERVER — 609

ANALYZE DOCUMENT
FOR BUGS — 610

SAVE DIAGNOSTIC
INFORMATION TO
DATABASE — 611

TRANSCODE DOCUMENT
AND SAVE TO CACHE — 612

DOWNLOAD TRANSCODED
DOCUMENT TO CLIENT — 613

RETRIEVE DOCUMENT
FROM REMOTE SERVER — 605

TRANSCODE DOCUMENT BASED
ON DIAGNOSTIC INFORMATION IN
DATABASE AND SAVE TO CACHE — 606

DOWNLOAD TRANSCODED
DOCUMENT TO CLIENT — 607

DOWNLOAD DOCUMENT
IN CACHE TO CLIENT — 608

FIG. 6

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DOCUMENT
REFERENCING IMAGE
PREVIOUSLY
RETRIEVED
? — 701

NO

STANDARD ROUTINE
FOR INITIAL RETRIEVAL — 706

YES

DETERMINE SIZE OF
IMAGE FROM DATABASE — 702

TRANSCODE DOCUMENT TO INITIALLY
DISPLAY BLANK AREAS ENVELOPING IMAGE — 703

DOWNLOAD DOCUMENT TO CLIENT
WHILE RETRIEVING IMAGES — 704

DOWNLOAD IMAGES TO CLIENT,
REPLACING BLANK AREAS WITH IMAGES — 705

FIG. 7A

Title: **A METHOD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN**
Inventor(s): Lee S. Mighdoll, et al.
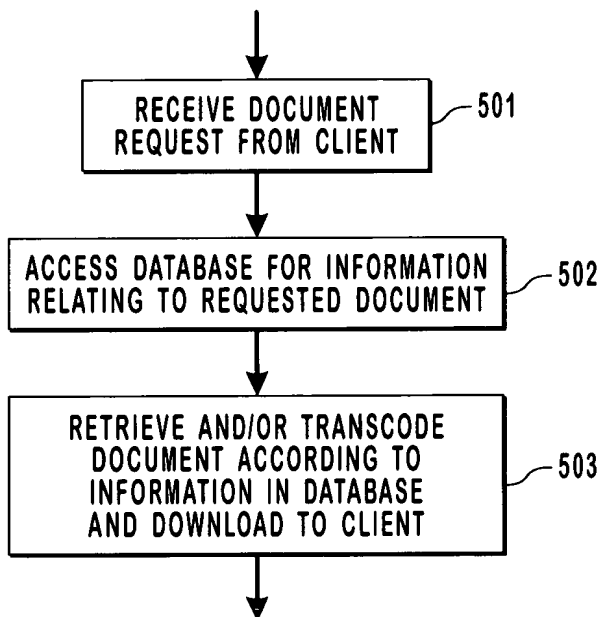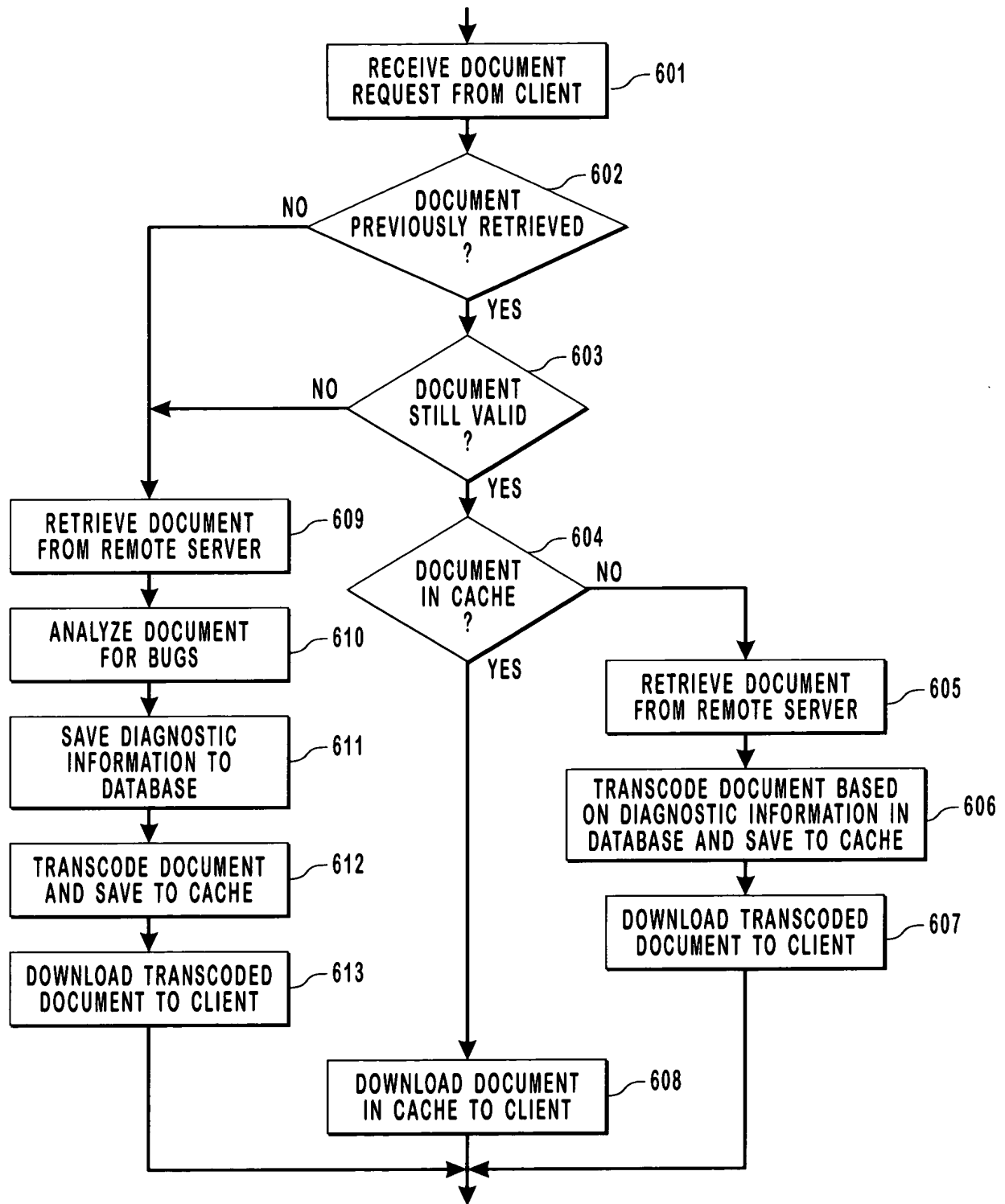Docket No.: 14531.5.5.1

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START

RECEIVE DOCUMENT FROM
REMOTE SERVER — 751

LAYOUT ENTIRE
WEB PAGE — 753

PH = PAGE HEIGHT OF
ENTIRE WEB PAGE;
SH = SCREEN HEIGHT OF
CLIENT DISPLAY DEVICE;
H = 0; — 755

DOWNLOAD TO CLIENT ALL
HTML DATA THAT WILL DRIVE
LAYOUT ON CLIENT FOR
PARTITION OF WEB PAGE
DEFINED BY H TO H + SH - 1 — 757

DOWNLOAD TO CLIENT ALL
IMAGE DATA THAT WILL BE
DISPLAYED ON CLIENT FOR
PARTITION OF WEB PAGE
DEFINED BY H TO H + SH - 1 — 759

H = H + SH — 761

YES ◇ H < PH? — 763

NO

END

FIG. 7B

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: **A METHOD FOR DOWNLOADING A WEB PAGE TO A CLIENT FOR EFFICIENT DISPLAY ON A TELEVISION SCREEN**
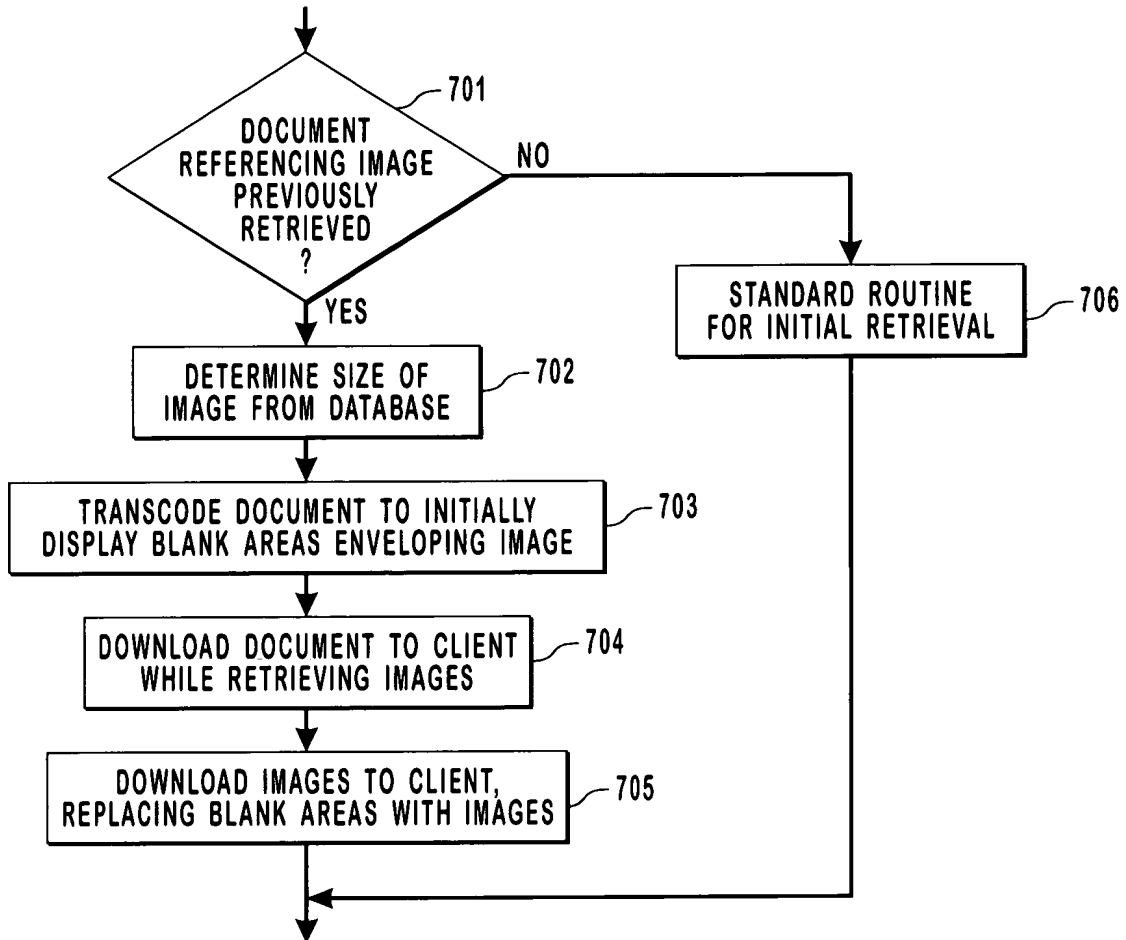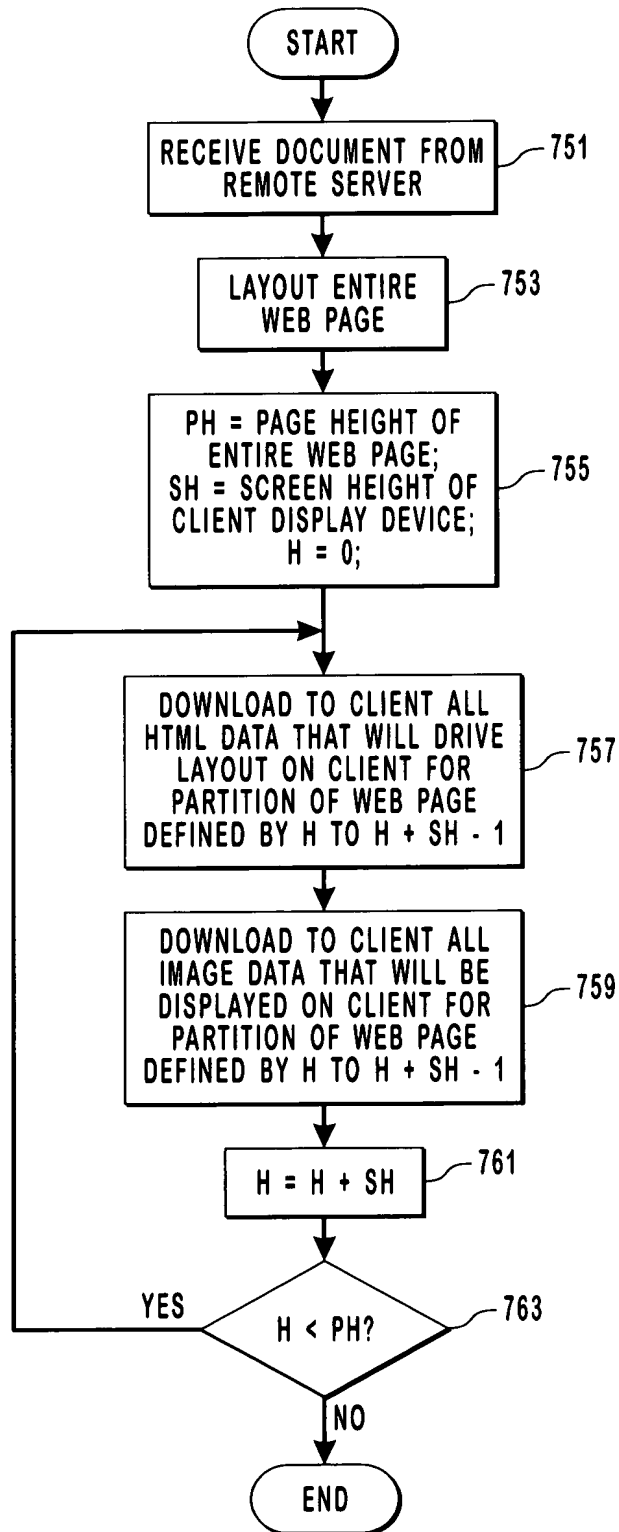Inventor(s): **Lee S. Mighdoll, et al.**
Docket No.: **14531.5.5.1**

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ELAPSED TIME SINCE DOCUMENT X LAST RETRIEVED $\geq T_1$? — 801

NO

YES

RETRIEVE DOCUMENT X — 802

RETRIEVED DOCUMENT X SAME AS CACHED DOCUMENT X ? — 803

NO

REPLACE CACHED DOCUMENT X WITH RETRIEVED DOCUMENT X — 806

YES

$T_1 = T_1 + \Delta t_1$ — 804

SAVE DATE, TIME, AND CHANGE STATUS TO DATABASE — 805

FIG. 8

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: A METHOD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN
Inventor(s): Lee S. Mighdoll, et al.
Docket No.: 14531.5.5.1

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RECEIVE LOGICAL ADDRESS
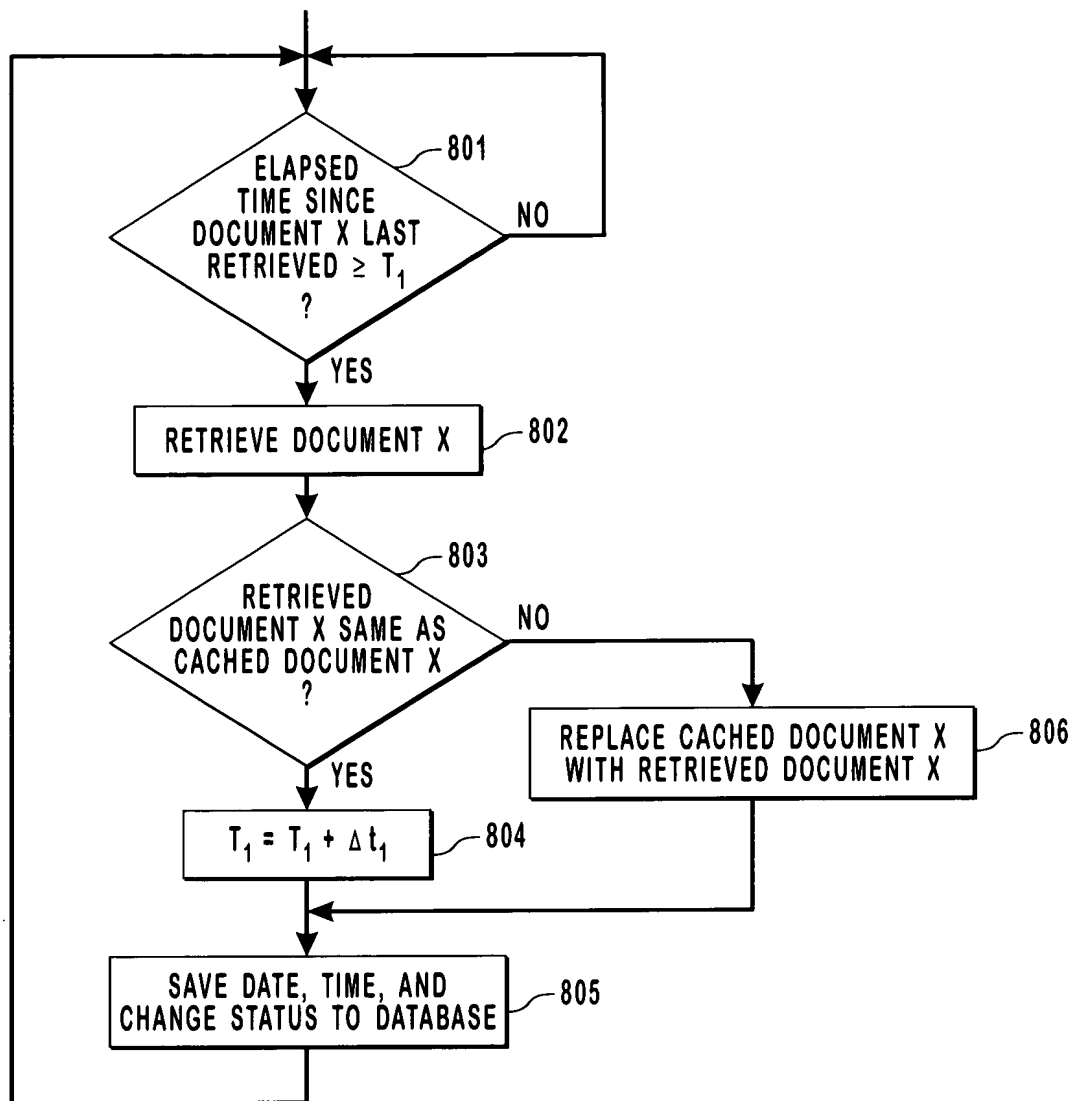OF DOCUMENT FROM CLIENT — 901

HAVE A
REDIRECT ADDRESS
STORED IN DATABASE
? — 902

YES

NO

ACCESS DIFFERENT REMOTE SERVER
USING REDIRECT ADDRESS — 906

ACCESS REMOTE SERVER USING
ADDRESS PROVIDED BY CLIENT — 903

REMOTE
SERVER RESPOND
WITH A REDIRECT
? — 904

YES

SAVE REDIRECT ADDRESS
TO DATABASE — 905

NO

RETRIEVE DOCUMENT
AND DOWNLOAD TO CLIENT — 907

FIG. 9

Title: **A METHOD FOR DOWNLOADING**
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN
Inventor(s): **Lee S. Mighdoll, et al.**
Docket No.: **14531.5.5.1**

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FIG. 10
(PRIOR ART)

APPROVED | O.G. FIG.
BY | CLASS | SUBCLASS
DRAFTSMAN

Title: **A METHOD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN**
Inventor(s): Lee S. Mighdoll, et al.
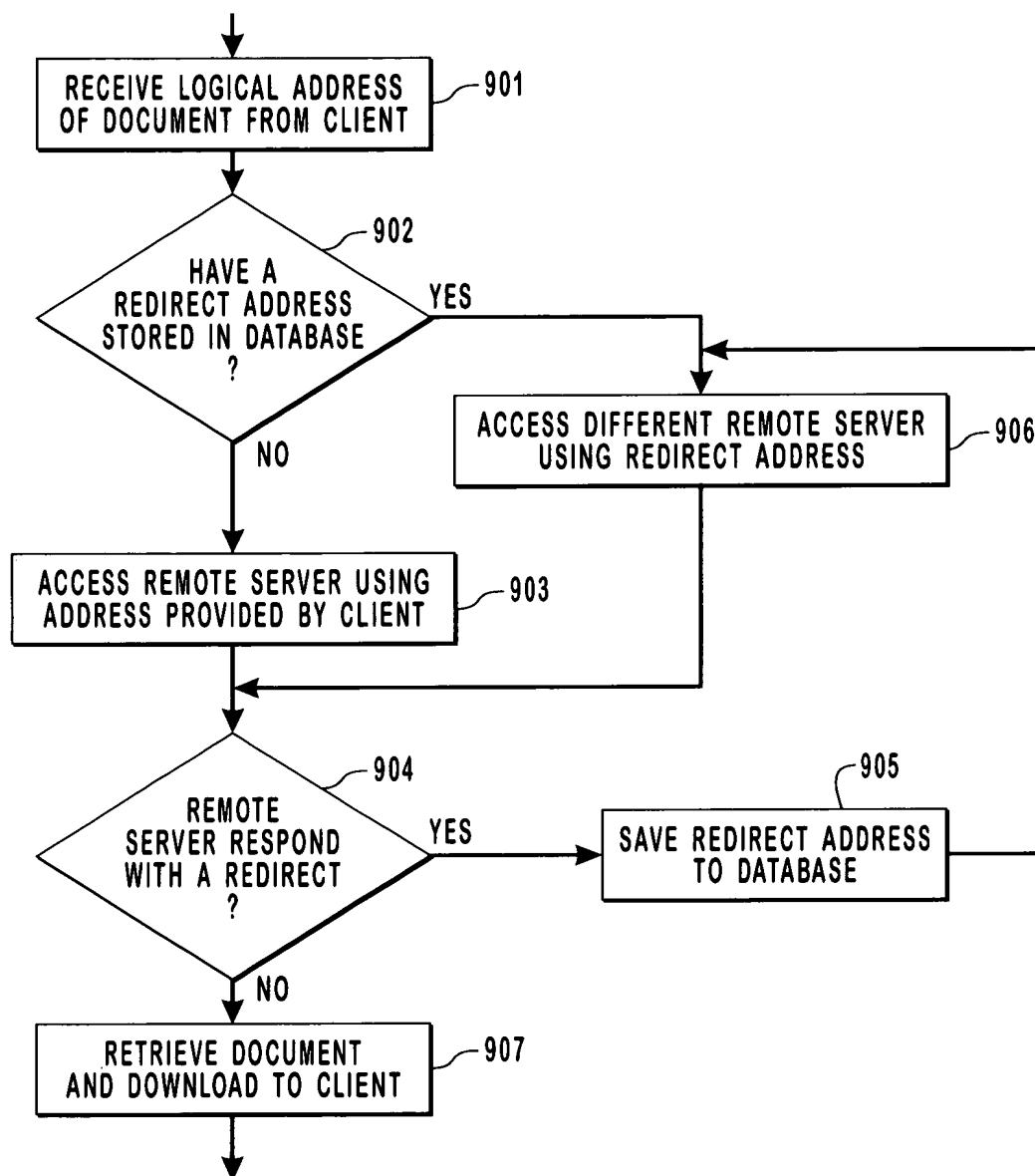Docket No.: 14531.5.5.1

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FIG. 11

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: A METHCD FOR DOWNLOADING
A WEB PAGE TO A CLIENT FOR EFFICIENT
DISPLAY ON A TELEVISION SCREEN
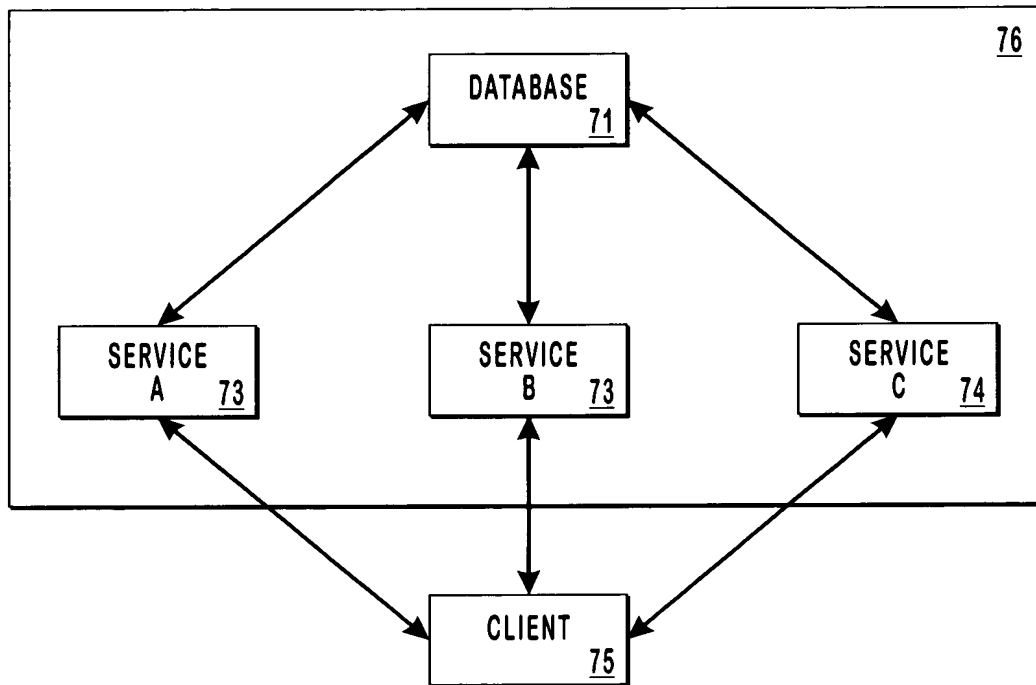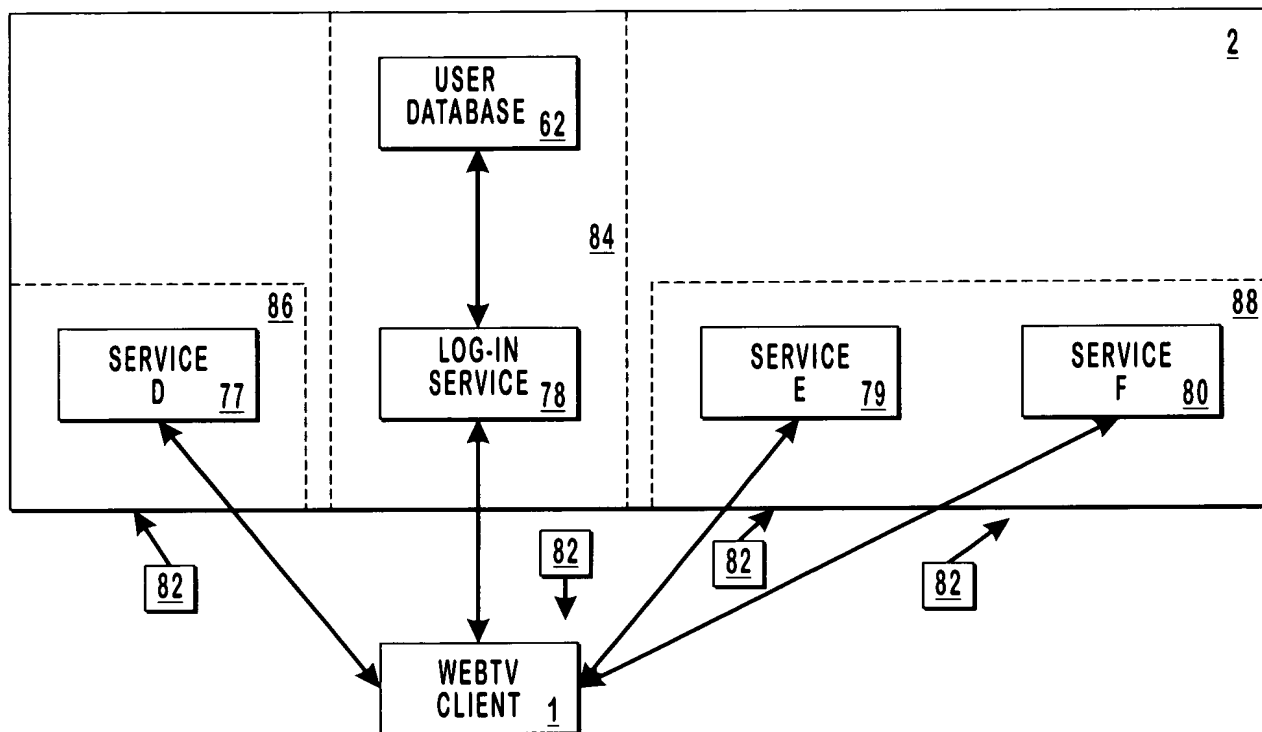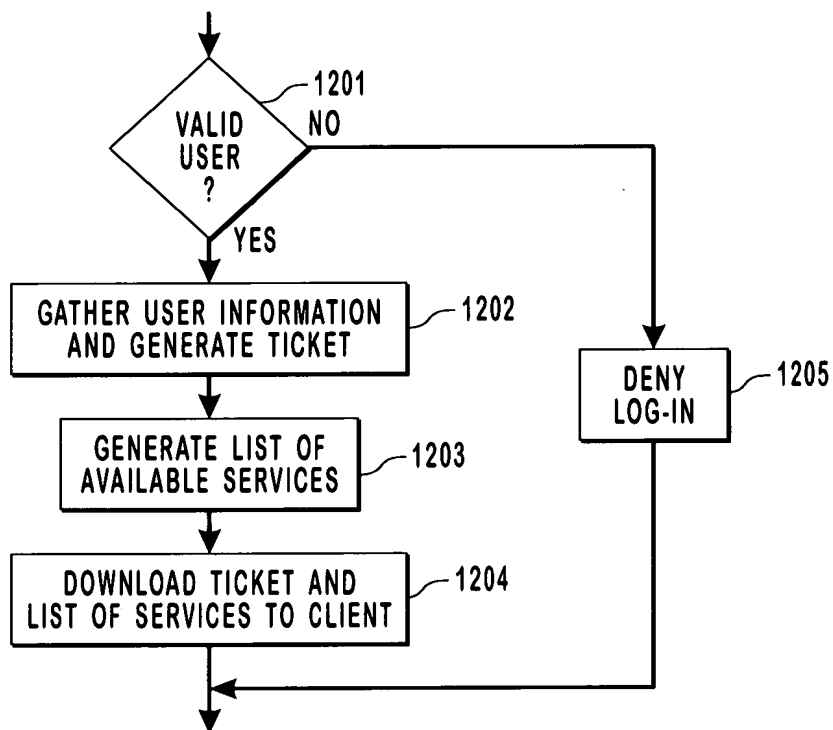Inventor(s): Lee S. Mighdoll, et al.
Docket No.: 14531.5.5.1

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```
                    ┌1201
                  /VALID\   NO
                 < USER  >────────────┐
                  \  ?  /             │
                    │ YES            │
                    ▼                 ▼
         ┌──────────────────────┐  ┌──────────┐
         │ GATHER USER INFORMATION│─1202  │ DENY    │─1205
         │  AND GENERATE TICKET │  │ LOG-IN  │
         └──────────────────────┘  └──────────┘
                    │                  │
                    ▼                  │
         ┌──────────────────────┐      │
         │  GENERATE LIST OF    │─1203 │
         │ AVAILABLE SERVICES   │      │
         └──────────────────────┘      │
                    │                  │
                    ▼                  │
         ┌──────────────────────┐      │
         │ DOWNLOAD TICKET AND  │─1204 │
         │ LIST OF SERVICES TO CLIENT│  │
         └──────────────────────┘      │
                    │◄─────────────────┘
                    ▼
```

FIG. 12